

Abstract Submitted  
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**Improved initial data for binary black hole simulations** WILLIAM THROWE, Cornell University, SXS COLLABORATION — Asymptotically matched approximate analytic metrics can provide realistic initial data for binary black hole simulations. We have simulated these data using the Spectral Einstein Code (SpEC) and observe that they show decreased junk radiation and physical parameter drift as compared to commonly used initial data. We have generalized previous asymptotically matched data sets to allow for arbitrary initial hole velocities, and have demonstrated that this method can be used to adjust the eccentricity of the simulated binaries, including describing binary systems with quasicircular orbits.

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